sikla

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15years siFramo

Sikla Polska continues to expand

Following the warehouse expansion in 2020, February 2021 saw Sikla Polska begin construction of a three-floor office building and a further warehouse expansion which will accommodate the workplaces of up to 80 employees in the future. There will be room in the office building for a modern training centre to hold product, sales and IT training courses. Modern working and social spaces will also be created for the employees. Warehouse technology is also becoming smarter, enabling Sikla Polska to move one step closer to "Industry 4.0".

Happy Birthday Sikla Slovenia

Sikla d.o.o. was founded in Črenšovci, Slovenia 20 years ago. Managing Director Ignac Jantelj, together with his team of 10 employees, also manages the countries of Croatia, Serbia, Montenegro, Bosnia, Herzegovina, Macedonia and Kosovo. The sales office opened in Croatia in 2017 and is now based in Zagreb. In addition, two other distributors guarantee fast product availability on site: Siconnect products can be purchased from Petrokov d.o.o. and Simotec as well as siFramo products can be ordered from STROJOPROMET-ZAGREB d.o.o.

CEO Ignac Jantelj explains, *"In this anniversary year, we would particularly like to say THANK YOU to all our customers and business partners for their long-standing and cooperative partnership."*

Office for Engineering and Sales in Füllinsdorf, Switzerland

Since November 2017, Sikla (Switzerland) AG has managed an office for engineering in Füllinsdorf, in the canton of Basel-Country in Switzerland. This allows us to be in close proximity to many of our customers in the industrial and constructional engineering business. In response to the positive feedback and increasing demand for practice-oriented engineering, it was necessary to increase capacities and office space. Sikla Switzerland is currently working with three engineers and three sales employees responding to requests on BIM projects, 3D planning and static calculations.

Dear Readers,

We are in a state of transition and times are feeling turbulent. Many things have been shaken up, have changed and are presenting us with new challenges. These all need to be tackled by each of us in their own special way. Whatever the storm and however high the waves are, we can always take one matter in our own hands: How we decide to deal with the situation. Do we give space to fear or do we bravely stand up to the challenges?

Sikla is also positioning itself for the future. In continuation of my interview last year with company founder Sighart Klauß, this year I was given the opportunity to interview Isabel Mörtl and Patricia Klauß, the third company generation. On the following pages, the two of them talk about their work in the Group and what goals they have set for the future.

It is now 15 years ago since we developed the siFramo support system and successfully established it worldwide. To mark this anniversary, we would like to say THANK YOU and have prepared a small surprise for you. You can find out more about this on page 6.

We look forward to continuing our cooperation with you and will be happy to support you in the future as a reliable and competent partner in all aspects of fastening technology.

Enjoy reading this issue!

With kind regards

Manuela Maurer
Marketing Communications Manager

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Introducing the next generation at Sikla

Anyone born into an entrepreneurial family has basically been part of the family business from childhood on. The third generation attaches importance to values such as honesty, openness, but also transparency and structure.

Patricia Klauß and Isabel Mörtl in front of the new automated long-goods warehouse

Isabel, you have now been with the company for four years. What are your areas of responsibility?

I. Mörtl: My primary responsibility right after I joined the company was to establish a globally networked HR department. I'm now also working intensively on corporate development, especially with the long-term strategic orientation of the Sikla Group. This allows me to focus on exploring what is the family's core responsibility in the company's strategy.

Patricia, when you first started working for the company two years ago, your flexibility was immediately put to the test, because everything was suddenly different than you'd originally planned in just a short space of time.

P. Klauß: Yes, that's right. I'd initially planned to concentrate my efforts on updating the international logistics of the company Group, but after just a few weeks I took over the management of our ERP project. This project enabled me to gain a very deep insight into our corporate processes in a relatively short time. Both on a national and global level.

In the future, I, like my sister, plan to become more involved in the corporate development side of the business and will concentrate my attention on my original responsibility of international logistics.

Isabel Mörtl,
née Klauß
and Patricia Klauß

in conversation
with Manuela Maurer

Now in the third generation – 54 years after the company was founded – what targets have you set yourself in order to secure Sikla's future?

I. Mörtl: One important task for us is to continue pursuing the same corporate culture which our grandfather Sighart Klauß shaped when he founded the company and adapt it to today's environment. We develop our strategies and business models based on this culture. We have grown strongly in recent years. We currently operate on three continents with our own companies. It is certainly a challenge to preserve and maintain our values and the Sikla culture in this international environment and to take existing and new employees along with us. We value a direct, uncomplicated yet respectful communication and hope that all Sikla companies around the world act in the same way.

P. Klauß: As a family, we have set further international expansion and growth at a healthy speed as goals for the coming years. We are focusing on professionalisation and further development throughout the Group. We want to continue pursuing our values and our service philosophy in the future.

We are all confronted with ever faster change processes, especially in the professional environment. How is Sikla dealing with this ever-changing environment and what role does the further training of employees play in this?

I. Mörtl: Of course, a great deal has changed in our day-to-day work environment in recent years, and the pandemic has also left its mark and forced us to make rapid changes. We train our employees using digital learning and face-to-face events. We see this as another one of the major challenges lying ahead of us over the years to come.
In my opinion, the most important thing once again is honest and open communication so that we keep in constant touch with our employees as well as our customers. The future will continue to present us with new changes.

Which topics come to mind when you hear the buzzword "digitisation"?

P. Klauß: Digitisation is not a new topic for us, but in my opinion it is rapidly gaining in importance. System-based processes are now in use in all areas of the company. In the warehouse with the use of scanning technology and automated shelving systems, to BIM in sales and data warehouse in controlling. The launch of our new ERP system is the foundation on which we are building further projects. It gives us the opportunity to consolidate more growth in this area. Interfaces to various software modules as well as data exchange with suppliers and customers are becoming increasingly important for us.

Here's a personal question to end our conversation. What are your hobbies or what do you do to switch off and relax?

I. Mörtl: I spend time with my family. Being a mum to two nursery school children, I have my hands full with other things outside of work. We like to travel and after many trips to faraway countries, we are now discovering Europe with the kids and our camping van. This is a lot of fun for the whole family and we hope to give our children an open-minded image on the world. I also enjoy jogging and cycling.

P. Klauß: After work, I often spend time on the climbing wall, bouldering. On weekends and holidays, my partner and I spend as much time as possible in the great outdoors. It usually takes us into the mountains, climbing and mountaineering, or we are on the road in Europe with our "4x4". We are looking forward to travelling and taking city breaks without any restrictions. The first two Sikla generations enjoyed travelling and discovering other cultures – and this passion has rubbed off on me.

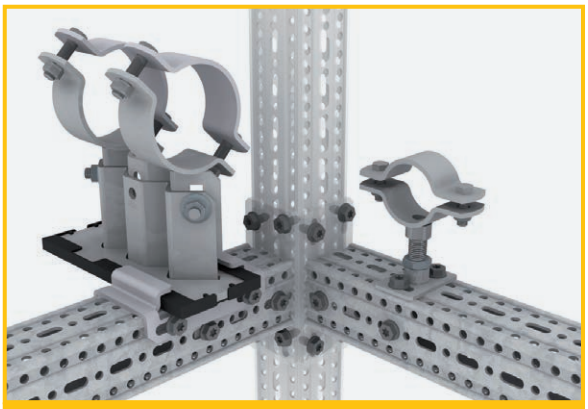
15 years siFramo

Innovation and quality with unlimited application options

How it all began

More than 15 years ago, we had the vision of developing a revolutionary type of universal support system for medium load ranges. The idea was to design a system which could connect frame members anywhere and on all four sides without the members clashing.

This new system also had to be as easy and quickly to install as Sikla customers would expect. This put our focus on resolving the screw connection detail and the remaining development process produced thread-forming technology as our choice. The result: Maximum flexibility, timesaving, and safety.



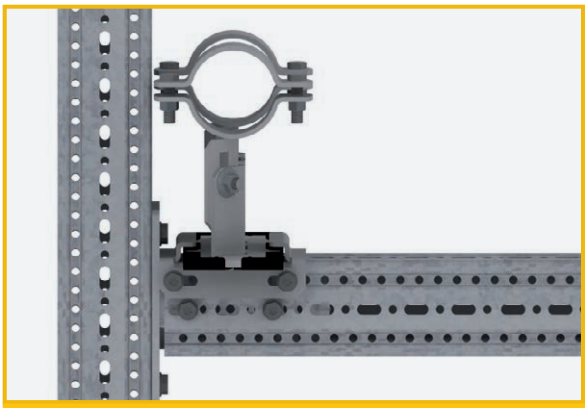
No nuts, no clash within the section

The only support system with one-screw technology

ONE-SCREW TECHNOLOGY

One-screw technology enables the efficient installation with just one screw type for all different components and loads.
Continuous and three-dimensional connections are therefore possible.

Another innovation is the geometric design of our four beam section sizes. By using corrugation as a strengthening method, and by positioning the ridges close to the four corners, we achieve the ideal load distribution for the profile shapes. The structural capacity is approximately 50% higher using the same amount of raw material. The practical impact is easier material handling while saving valuable raw material resources.



Connection options right up to the corner

Take a look at our video!

siFramo impresses our customers

Production facility for separators for lithium-ion batteries uses siFramo

A production facility for “SK Hi-Tech battery materials Poland”, which belongs to the Korean group SK Innovation, is being built in Dębrowa Górnicza in Poland. The plant will be the largest of its kind in the world and will spread over an area of almost 40 hectares. Separators, a key part used in lithium-ion batteries for electric cars, will be built there. Plant 1 is expected to start production in the third quarter of 2021 and plant 2 in the first quarter of 2023. The construction of plants 3 and 4, whose start of production is planned for the end of 2023, is already expected to begin in 2021.

Sikla Polska became one of the main suppliers for fastening technology – both on a technical and constructional level - because of the professional cooperation with the Korean managers and employees of the Polish subsidiary of Shinsung Engineering CO. LTD.

The siFramo support system is ideal for this project due to its many advantages, such as its multi-functionality, quick and easy installation and the fact that all changes can be made directly on site. Up to now, more than 13,000 metres of TP 80, 100 and 100/160 profiles, almost 5,000 STA F end supports and pipe bearings in various designs as well as 135,200 FLS F self locking screws and many other Sikla products have been supplied and installed.

Floor-mounted support structures for cold water and steam systems

Support structures attached to anchor rails

Large diameters, high installation temperatures and complicated installation situations, which are caused, among other things, by the large distances between the building structures or the high density of the installation, were just a few of the challenges posed by this project. The versatility of siFramo for both the direct fastening of installations as well as for large structures such as transfers or ceiling suspensions is perfect for handling these challenges.

>> In our profession, time and high product quality are crucial because deadlines are often "yesterday". We appreciate Sikla Polska for their professional support in every project phase – starting from the technical support of experienced engineers to the fast availability of goods on the construction site. siFramo worked perfectly in this project. The main advantage of simple and fast installation impressed us most. All changes could be made on site, which would not have been possible with welded constructions. To sum up, what impressed us was the speed, simplicity and high level of professionalism! <<

Daniel Podkalicki
Specialist Site Manager at HLSK Shinsung Engineering Poland subsidiary

From left to right: Rafał Mikita – Civil Engineer, Daniel Podkalicki – Specialist Site Manager at HLSK, Robert Komar – Civil Engineer

High Corrosion Protection for maximum safety

The effects of corrosion are often underestimated, although it can make these support structures and installations unsafe or unstable. It is often necessary to completely replace components or systems.
With High Corrosion Protection solutions from Sikla, projects can be implemented easily and efficiently up to corrosivity category C4 with a standard product range.

What exactly is High Corrosion Protection?

Anyone looking for the best corrosion protection for steel will quickly find the terms Protect (protegere = covering or protecting against damage) and Zinc. Steel must be shielded against oxygen, then it cannot oxidise and is therefore protected against corrosion. Reliable corrosion protection is best achieved with zinc.

Zinc protects steel from corrosion in two ways. On the one hand, a zinc-based separating layer creates a physical separation between the steel and corrosive environment. Zinc also creates a patina on the surface, which slows down the corrosion of the zinc itself. On the other hand, zinc and iron form a so-called "local element" in a humid environment. This releases electrons and slowly dissolves. The steel is preserved and, figuratively speaking, the zinc "sacrifices" itself for the steel.

The term "High Corrosion Protection" – in short HCP – offers you optimal corrosion protection for different connecting elements. In order to select the optimal coating system for you, we place particular importance to the protective effect, the preservation of product functionality, such as threadability, market requirements

Conventional and siFramo 80 T-supports
A few months after installation

... after 6 years of weathering

and cost-effectiveness. The protective effect of all Sikla HCP coating systems is at least equivalent to tried-and-tested hot-dip galvanising in the hot-dip process.

Günter Brugger
Head of Research and Development

>> High Corrosion Protection surfaces protect steel as an important building material for the construction industry. Thanks to the optimal choice of processes, we achieve significantly longer protection times for components, even with thin layers. This protects both the environment and resources. <<

Sikla components with the HCP system always comply with corrosivity category C4 long and the requirements of DIN EN ISO 12944-2.

HCP Protection Systems

Zinc-magnesium coatings

With this method, the coating thickness can be reduced by about one third compared to pure zinc coatings. Despite a significantly thinner coating, comparable corrosion resistance is achieved, particularly in environments exposed to salt. This protects both the environment and resources.

Zinc-nickel coatings

The zinc-nickel coating has been implemented as an electroplating process for several years. A nickel content of approx. 15% is deposited on the surface. The coating layer has a higher hardness and better corrosion resistance than pure zinc. In the salt spray test, the Zn/Ni coatings show significantly better corrosion resistance than pure Zn coatings. The resistance to white rust formation is also significantly higher.

Zinc flake coatings

These are thermo-reactive systems with a high percentage of zinc and aluminium flakes. This ensures the electrical conductivity of the metallic layer and thus results in cathodic corrosion protection. The flake-like layers offer a high barrier effect against corrosive media together with thin layer thicknesses.

Ambient conditions

Systematic corrosion protection planning requires an analysis of the climatic site conditions of the structure. EN ISO 12944-2 defines the classification of environmental factors. A product must withstand these climatic conditions.

Corrosivity category	Corrosion stress	Exterior	Interior
C1	Very low		Heated buildings with a neutral atmosphere, e.g. offices, sales rooms, schools, hotels
C2	Low	Atmospheres with low level of pollution: mostly rural areas	Unheated buildings where condensation may occur, e.g. gymnasiums, warehouses
C3	Medium	Urban and industrial atmospheres with moderate sulphur dioxide exposure; coastal atmosphere with low salt exposure	Production rooms with high humidity and some air contamination, e.g. food processing plants, laundries, breweries, dairies
C4	High	Industrial atmosphere and coastal atmosphere with moderate salt exposure	Chemical plants, swimming pools, coastal shipyards and harbours
C5	Very high	Industrial areas with high humidity and aggressive atmosphere and coastal atmosphere with high salt exposure	Buildings or areas with almost permanent condensation and high pollution.
CX	Very high	Offshore areas with high salt exposure and industrial areas with extreme humidity and aggressive atmosphere as well as subtropical and tropical atmospheres	Industrial areas with extreme humidity and aggressive atmosphere

Smart and efficient planning tools offer valuable savings potential

Smart planning tools use pre-defined, common types of typicals. Complex designs can be automated in just a few steps and rendered in 3D models based on placement rules and regulations.

The newly designed planning tool SiCAD4S3D is based on Intergraph Smart 3D and is aimed at plant engineering planners. This allows pipe-enclosing components (primary supports) and supporting structures (secondary supports) to be placed efficiently within an S3D planning environment. Drawings and material reports can be created automatically and exported from S3D for ordering from Sikla.

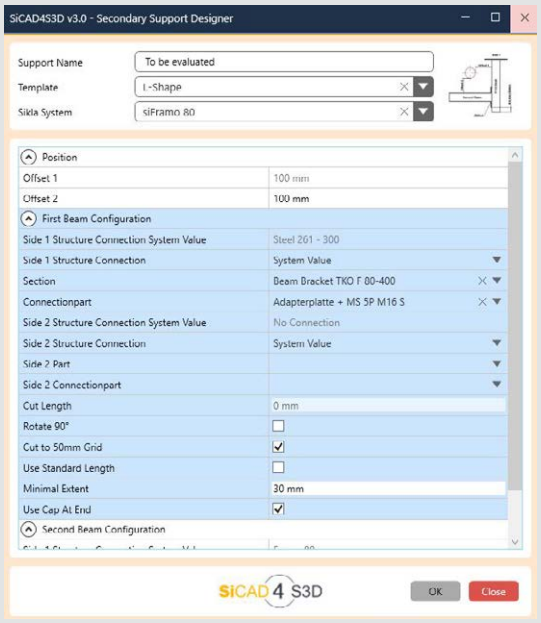
SiCAD 4 S3D

The modular program structure is easy to understand and specialises in individual modules that are compatible with each other. This offers the user various procedures, adapted to individual needs, for inserting the primary and secondary supports into the 3D model.

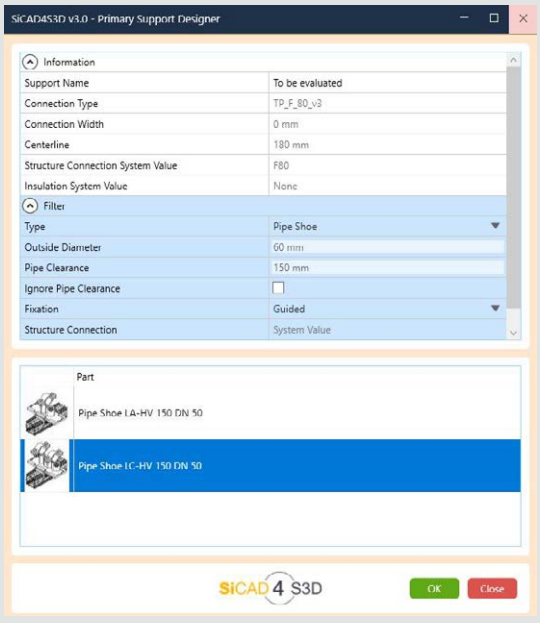
SiCAD4S3D offers both installation support (Installation Manager) and assistance with customising the required Sikla components to the project environment (Project Settings).

In Smart3D, the SiCAD4S3D application can be found in the “Hangers and Supports” task. The primary supports are placed using an automated module (Primary Support Designer), which reads out all the necessary information from the model and the pipeline. Using a simple filter function, the product range can be narrowed down to the products suitable for the application.

Secondary supports are inserted into the 3D model in two different ways. The first option is using a typical selection function (Secondary Support Designer), which represents the most common types of structures of Sikla fasteners, taking into account the structural conditions. Here, too, the product range can be narrowed down using



Primary Support Designer



Secondary Support Designer

a simple filter function. Beams and connecting components are placed automatically. The second option is the placement of individual beams, which can then be connected automatically (Connection Designer). The “Connection Designer” can also fully automated convert the edge models created for pre-planning into detailed secondary supports.

The consistency of the primary and secondary supports is checked using the “Consistency Check” function. This checks the feasibility of the structure and provides support in the event of corrections. The user can switch directly from the “Consistency Check” to the required module and make the necessary correction.

The material is evaluated with the S3D on-board equipment report. Excel reports customised to Sikla can be used for ordering.

Semi-automated creation of drawings is also carried out using the S3D on-board equipment. Measurements, item numbers and the parts list are included in the drawing.

Bruno Pedro
BIM Professional

>> Our new application for S3D offers the planner different modules that enable efficient modelling of the support systems and insertion of pipe-enclosing components. <<

Digital fixed point guideline

Our new fixed point guideline explains the function of classic expansion compensation in pipeline construction, such as simple angle bends (L-bends), U-bends and compensators. Solutions for a wide variety of installation situations are demonstrated.

Changes in temperature cause changes in length and require different fasteners in order to guide them effectively. Fixed points are used to absorb and transfer axial and radial pipeline forces. Expansions are therefore controlled and irreversible deformations, large displacements and incorrect load distributions are prevented. In order to be able to connect the pipeline without force, mechanical forces and torques are absorbed with a fixed point in front of a unit or a pump. Fixed points can either absorb forces and torques in all directions or, when installed as partial fixed points, can limit the degree of freedom of pipelines in certain directions.

It is always particularly challenging when the pipeline is far away from the building structure. The fixed point guideline helps you to select the fixed point type according to the max. permissible fixed point force depending on the structural distance. In addition to simple principles, solutions are also provided in which the load is divided according to the stand and strut principle. The following are available:

- Installations without struts
- Installations with struts
- U-yoke structures for multiple lines
- Fixed points on steel beams
- Fixed points on siFramo
- Fixed arrangements
- Fixed Point for cold insulated lines

Interactive buttons show the components and their technical data. Material characteristic values, permissible load values and installation videos supplement the information.

The fixed point guideline is available for download as follows:

German

English